

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Amendment of Commission's Rules with	)	GN Docket No. 13-185
Regard to Commercial Operations in the	)	
1695-1710 MHz, 1755-1780 MHz, and	)	
2155-2180 MHz Bands	)	

**REPLY COMMENTS OF VERIZON WIRELESS**

The auction of 2 GHz spectrum, as directed by Congress in the Spectrum Act,<sup>1</sup> gives the Commission a critical opportunity to make significantly more spectrum available for commercial use. Verizon Wireless and many other parties support the Commission's proposals for the AWS-3 auction. The record in this proceeding demonstrates universal support for making the 1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz bands available for commercial mobile services on a paired basis.<sup>2</sup> In addition, there is broad consensus on most service and technical rules proposed by the Commission. The Commission, however, should reject proposals to adopt new spectrum caps or screens or to restrict participation in the auction as unnecessary and inconsistent with the public interest and the Commission's broadband goals.

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<sup>1</sup> See Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, § 6401, 126 Stat. 156 (2012) (the "Spectrum Act").

<sup>2</sup> *Amendment of the Commission's Rules with Regard to Commercial Operations in the 1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz Bands*, Notice of Proposed Rulemaking and Order on Reconsideration, 28 FCC Rcd 11479 (2013) ("*NPRM*").

## **I. THE RECORD DEMONSTRATES WIDESPREAD SUPPORT FOR AUCTIONING THE AWS-3 BANDS AS PAIRED SPECTRUM AND MANY OF THE FCC’S PROPOSED SERVICE AND TECHNICAL RULES.**

As Verizon Wireless detailed in its initial comments, the AWS-3 bands are ideally positioned to offer wireless providers additional spectrum to meet the growing demands of the public for mobile services, particularly broadband. To do this, commenters agree that ideally the FCC should auction these bands as paired spectrum.<sup>3</sup> Specifically, the FCC should auction the 1755-1780 MHz band for paired use with the 2155-2180 MHz band.<sup>4</sup> In addition, the FCC should auction the 1695-1710 MHz band with an appropriate band pairing. Many commenters in this proceeding, including Verizon Wireless, supported pairing this band with a portion of the Broadcast Auxiliary Service band at 2025-2110 MHz.<sup>5</sup> Given the potential challenges in making this spectrum available for commercial mobile use in time to meet the statutory deadline to auction the 1695-1710 MHz band, the FCC should explore whether the 1695-1710 MHz band could be paired with other bands.

There also is broad support for many of the Commission’s proposed service and technical rules for the AWS-3 bands. First, several commenters agree that the FCC should adopt population-based performance requirements for the AWS-3 band.<sup>6</sup> As T-Mobile notes, “[a] lengthy build out schedule, such as the rule adopted by the FCC permitting AWS-1 licensees to

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<sup>3</sup> See, e.g., AT&T Comments at 3-5; CCA Comments at 3-5; CTIA Comments at 8-12; Ericsson Comments at iii; Mobile Future Comments at 4; US Cellular Comments at 8-9; Verizon Wireless Comments at 4-5.

<sup>4</sup> See, e.g., 4G Americas Comments at 1; AT&T Comments at 5-7; CTIA Comments at 10-12; Motorola Mobility Comments at 4-5; Verizon Wireless Comments at 5-7.

<sup>5</sup> See, e.g., CCA Comments at 6; CTIA Comments at 12-18; Ericsson Comments at 7-18.

<sup>6</sup> T-Mobile Comments at 32-33; AT&T Comments at 14 (“The proposed requirements, to provide reliable signal coverage and offer service to at least 40 percent of the population within 4 years and to at least 75 percent of the population by the end of 10 years, is reasonable and reasonably consistent with the requirements that apply to other recent allocations.”).

provide ‘substantial service’ at the end of their 15-year license time without an interim construction requirement, could delay deployment of services and should not be adopted for AWS-3 spectrum.”<sup>7</sup> The buildout timeframe, however, should not necessarily begin on the license grant date. As AT&T notes, “[i]t might be 4-5 years before a licensee is able to begin to construct and operate a network using this spectrum due to spectrum unavailability.”<sup>8</sup> Therefore, the FCC should start the buildout period on a date certain that is after the final transition date for government operations.<sup>9</sup> In addition, Verizon Wireless agrees that the population of an area in which AWS-3 operations are prohibited to protect government operations should be excluded when determining whether a licensee has met its buildout requirements.<sup>10</sup> Second, the record shows that the FCC should apply its secondary market rules to the AWS-3 spectrum.<sup>11</sup> These rules ensure that spectrum can later be transferred to the entities that value it most highly and will deploy it quickly.<sup>12</sup> Finally, commenters universally agree that the FCC’s existing technical rules for the AWS-1 band should be applied to the AWS-3 band.<sup>13</sup> These technical rules already

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<sup>7</sup> T-Mobile Comments at 32-33.

<sup>8</sup> AT&T Comments at 14.

<sup>9</sup> *Id.* at 15.

<sup>10</sup> *See, e.g.*, Raytheon Comments at 38-39 (“Raytheon submits that the populations within Protection Zone should not be used to measure whether build out requirements are met. . . . There is no guarantee to a winning bidder for a license for which the authorized area includes all or part of a Protection Zone that the license will ever be able to operate within the Zone.”).

<sup>11</sup> *See, e.g.*, TIA Comments at 14 (“The policy objective of incentivizing early deployment can be accomplished by promoting leasing arrangements. . . . This policy will create regulatory certainty and encourage innovative arrangements that can speed wireless broadband to rural and other areas”).

<sup>12</sup> *See, e.g.*, Verizon Wireless Comments at 22-23.

<sup>13</sup> *See, e.g.*, T-Mobile Comments at 29-32 (supporting the proposed OOB limits and antenna height restrictions and proposing a higher power limit for uplink operations that conforms with the AWS-1 requirement); TIA Comments at 13-14 (“TIA supports the Commission’s proposed extension of a successful AWS-1 environment to AWS-3”); Nokia Solutions and Networks Comments at 20-21 (proposing a higher than proposed power limit for uplink operations);

have proven effective at minimizing harmful interference and will allow licensees to rely on existing industry technical standards for AWS rather than having to develop new standards for this band.<sup>14</sup>

## **II. THE FCC SHOULD REJECT PROPOSALS TO APPLY NEW SPECTRUM SCREENS AND CAPS TO THE AWS-3 AUCTION.**

As the Commission has noted, “the marketplace forces operating through the auction process, rather than regulatory fiat, [should] determine which of the multitude of service proposals will actually be implemented.”<sup>15</sup> The Commission has long relied on a spectrum screen to identify situations where spectrum aggregation (whether in the context of auctions or secondary market transactions) could risk competitive harm. That screen, if updated to include suitable and available spectrum, is an effective and sufficient tool to address spectrum aggregation that may result from the AWS-3 auction. In particular, as detailed in Verizon Wireless’ initial comments, the FCC should update its spectrum screen to include all suitable and available spectrum, including 132.625 MHz of Broadband Radio Service and Educational Broadband Service spectrum, 19.275 MHz of Mobile Satellite Service spectrum, and 40 MHz of AWS-4 spectrum.<sup>16</sup> These spectrum bands easily qualify for inclusion in the screen and much of this spectrum is in fact already in use to provide wireless services.

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Motorola Comments at 5-9 (“the AWS-3 service rules should be based, to the greatest extent possible, on those applied to the AWS-1 and AWS-4 bands, and on international standards”); CTIA Comments at 26-27 (“the Commission should look to the technical power limits for mobile devices in the AWS-1 rules for guidance on how to develop power limits for the AWS-3 band”).

<sup>14</sup> See, e.g., Verizon Wireless Comments at 23-25.

<sup>15</sup> *Service Rules for the 746-764 and 776-798 MHz Bands, and Revisions to Part 27 of the Commission’s Rules*, First Report and Order, 15 FCC Rcd 476, 489, ¶ 31 (2000) (“700 MHz Service Rules Order”).

<sup>16</sup> Verizon Wireless Comments at 9-13.

In addition, restrictions on spectrum ownership should apply only if there is a finding of a “significant likelihood of substantial competitive harm in a specific market.”<sup>17</sup> Given the strong and increasing competition in the market for mobile services, there is no indication that competitive harm would develop as a result of services provided using AWS-3 spectrum. According to the Commission’s *Sixteenth Wireless Competition Report*, most wireless providers are in the process of deploying 4G networks that will offer wireless consumers broadband services at speeds faster than DSL, and over 91 percent of the U.S. population lives in census tracts with access to three or more mobile broadband providers.<sup>18</sup> Thus, any rule restricting bidding in the AWS-3 auction would *undercut* the Commission’s statutory mandate to facilitate “the development and rapid deployment of new technologies, products, and services” and to promote “economic opportunity and competition.”<sup>19</sup> Despite these regulatory objectives and the state of the competitive wireless market, two commenters propose that the FCC impose a new spectrum screen or cap on carriers participating in the AWS-3 auction. The FCC should reject both of these proposals and instead update the existing spectrum screen to include all spectrum that is suitable and available for mobile use.<sup>20</sup>

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<sup>17</sup> *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, Second Report and Order, 22 FCC Rcd 15289 at 15383 ¶ 256 (2007) (“700 MHz Second Report and Order”).

<sup>18</sup> *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993*, Sixteenth Report, 28 FCC Rcd 3700 at 3706-7 ¶ 2 (2013).

<sup>19</sup> 47 U.S.C. § 309(j)(3)(A), (B).

<sup>20</sup> See, e.g., Verizon Wireless Comments, *Policies Regarding Mobile Spectrum Holdings*, WT Docket No. 12-269 (Nov. 28, 2012) (“Verizon Wireless MSH Comments”); Verizon Wireless Reply Comments, *Policies Regarding Mobile Spectrum Holdings*, WT Docket No. 12-269 (Jan. 7, 2013), Verizon Wireless Comments, *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, WT Docket No. 12-268 (Jan. 25, 2013), at 43.

First, the Commission should reject CCA's request that the Commission modify its existing spectrum screen to apply different weights to some spectrum bands.<sup>21</sup> Verizon Wireless and other commenters have already responded to this proposal at length in the Mobile Spectrum Holdings proceeding, and showed that "weighting" spectrum included in the screen on the basis of frequency/technical characteristics (*e.g.*, below 1 GHz or lower frequency spectrum) is unsound, arbitrary, and inherently unworkable.<sup>22</sup> There is no factual basis to conclude that holding lower band spectrum should be regulated differently than higher band spectrum. Each has relative advantages that vary depending on carrier needs and the state of the marketplace. A weighting scheme, moreover, would require the Commission to determine a relative value for each spectrum band depending on a number of factors, including the physical environment in a given area, population density, services demanded by consumers, services provided by the carrier, and the nature of the carrier's other spectrum holdings. There is simply no reasonable metric to weigh relative values of spectrum bands in any objective, non-arbitrary way, particularly given that any such weights would necessarily have to change continuously to reflect market changes.

Second, the Commission should reject U.S. Cellular's proposal to impose a 25 percent limit on the amount of spectrum any one applicant may acquire in a single market in the AWS-3 auction.<sup>23</sup> U.S. Cellular makes no showing of substantial competitive harm in specific markets that could justify replacing the current application of the spectrum screen to auction results with

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<sup>21</sup> CCA Comments at 10.

<sup>22</sup> See, *e.g.*, AT&T Comments, *Policies Regarding Mobile Spectrum Holdings*, WT Docket No. 12-269 (Nov, 28, 2012) at 62-69; Mobile Future MSH Comments, *Policies Regarding Mobile Spectrum Holdings*, WT Docket No. 12-269 (Nov, 28, 2012) at 12-14; Verizon Wireless MSH Comments at 29-31, 34-37.

<sup>23</sup> U.S. Cellular Comments at 50.

a limit on the amount of spectrum that can be acquired in any single band. Moreover, as the Commission has recognized, any restriction on participation in an auction jeopardizes the goals of the auction because it will “risk reducing the likelihood that the party valuing the license the most will win the license and put it to use for the benefit of the public.”<sup>24</sup> Restrictions could result in the spectrum being held by an entity that is not capable of utilizing it and deploying service in the most efficient manner, while constraining the amount of spectrum other entities can acquire to meet growing customer demand, disserving the public interest and the Commission’s goal to rapidly deploy mobile broadband services.

U.S. Cellular claims this marked change in policy is necessary to prevent a lack of interoperability in the AWS bands like the one that occurred in the Lower 700 MHz band,<sup>25</sup> but ignores all of the unique factors that led to the lack of interoperability in that band – factors that are entirely absent in the AWS-3 band. According to U.S. Cellular, a “lack of interoperability [in the Lower 700 MHz band] may not have arisen if there had been a greater diversity of license winners in the A, B and C Blocks from the outset.”<sup>26</sup> Thus, it reasons, a 25 percent cap on the amount of spectrum any single applicant may acquire in the AWS-3 auction could ensure interoperability across the entire AWS band while “fostering a competitive wireless industry.”<sup>27</sup> The Lower 700 MHz A Block, however, was – and is – subject to significant interference limitations, both from Channel 51 broadcast operations and high-power operations in the Lower 700 MHz E Block. The way for the FCC to ensure interoperability in bands going forward is to

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<sup>24</sup> *700 MHz Second Report and Order* 22 FCC Rcd at 15385 ¶ 259.

<sup>25</sup> U.S. Cellular Comments at 50-51.

<sup>26</sup> *Id.* at 51.

<sup>27</sup> *Id.*

establish band plans that will minimize interference, not to impose arbitrary limits on the amount of spectrum carriers may acquire in any particular auction.

For these reasons, the FCC should reject CCA's and U.S. Cellular's proposed restrictions as unwarranted, factually unsupported, and against the public interest. The FCC instead should update its existing spectrum screen by adding all suitable and available spectrum to it, as detailed in Verizon Wireless's initial comments.<sup>28</sup>

### **III. ECONOMIC AREAS ARE THE PROPER LICENSE AREA FOR THIS AUCTION.**

The Commission should license the AWS-3 spectrum on an EA basis.<sup>29</sup> As T-Mobile notes in its comments, “[l]icensing spectrum on an EA basis appears to strike a proper balance between the competing factors that impact the Commission’s decisions on geographic license size.”<sup>30</sup> Specifically, EA licenses will ensure both that smaller carriers can meaningfully participate in the AWS-3 auction and that the auction is manageable for the Commission’s planned auction design and for auction participants.

The Commission should not issue licenses on a CMA basis, as some commenters propose.<sup>31</sup> As Verizon Wireless states in its initial comments, that approach would require inefficient aggregation during or after the auction.<sup>32</sup> In addition, smaller applicants have

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<sup>28</sup> Verizon Wireless Comments at 9-13.

<sup>29</sup> *See, e.g.*, Mobile Future Comments at 15 (“EAs are most consistent with adjacent spectrum (AWS-1 and AWS-4) license sizes, and can be aggregated to cover larger areas. EAs reflect a suitable and appropriate compromise between Cellular Market Areas and larger Major Economic Areas or Regional Economic Area Groupings.”).

<sup>30</sup> T-Mobile Comments at 29.

<sup>31</sup> *See* Atlantic Seawinds Communications Comments at 1-2; Bluegrass Cellular Comments at 2-5; CCA Comments at 7-9; Public Service Wireless Services Comments at 1-2; US Cellular Comments at 27-36.

<sup>32</sup> Verizon Wireless Comments at 14-15.



successfully acquired EA licenses in spectrum auctions.<sup>33</sup> Nor are service areas smaller than EAs necessary to promote buildout in rural areas, as the Rural Wireless Association and U.S. Cellular argue.<sup>34</sup> No proponent of CMAs has demonstrated that prior grants of CMA-sized licenses led either to new competitive entry or to the introduction of wireless service to rural areas that are either unserved or underserved. In contrast, Verizon Wireless is using its Upper 700 MHz spectrum (which the Commission licensed in even larger REAGs) to deploy LTE coextensively with its EV-DO network to serve hundreds of rural markets and, through innovative secondary market transactions such as the LTE in Rural America initiative, has enabled many smaller carriers to launch LTE services in other rural areas. Reasonably small EA markets, together with construction benchmarks and the robust secondary market, thus remain the appropriate methods of promoting deployment in rural areas. Thus, licensing the AWS-3 spectrum in smaller-sized license areas, such as CMAs, is unnecessary and would be inefficient.

#### **IV. THE COMMISSION SHOULD ALLOW COMBINATORIAL OR PACKAGE BIDDING IN THE AWS-3 AUCTION.**

As Verizon Wireless detailed in its initial comments, package or combinatorial bidding will allow auction participants more readily to acquire regional or nationwide spectrum licenses that align with how the majority of the wireless market deploys wireless networks.<sup>35</sup> As such,

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<sup>33</sup> For example, in the AWS-1 auction, more than 20 small wireless providers purchased EA licenses.

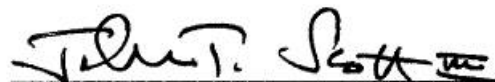
<sup>34</sup> Rural Wireless Association Comments at 3-5; U.S. Cellular Comments at 28-29.

<sup>35</sup> Verizon Wireless Comments at 16. The FCC also should narrow the scope of the anti-collusion rule by (1) applying the rule only to discussions that directly convey information regarding bids or bidding strategies, or directly relate to post-auction market structure, (2) confirming that discussions regarding generic technical handset and network issues are not prohibited, (3) narrowing the definition of “applicants” to include only the filing entity and its controlling equity interest holders, and (4) shortening the period during which the rule is in effect to the period between the short-form application deadline prior to the auction and when the bidding closes. These minor modifications will ensure that the anti-collusion rule does not deter auction participation or reduce proceeds. Verizon Wireless Comments at 18-20.

package bidding will facilitate more rapid build-out of licensed AWS-3 services to the benefit of consumers as licensees will be able to take advantage of the economies of scale created by larger license areas. In addition, package bidding will reduce the applicants' risk of failing to acquire all licenses necessary to a business plan, thereby promoting more active participation in the auction.

U.S. Cellular's concerns about package bidding are misplaced. Specifically, U.S. Cellular claims that package bidding puts smaller bidders at a disadvantage because it allows large bidders to tie up multiple licenses in large package bids, thereby inhibiting smaller bidders from being able to acquire one or a small number of individual licenses. It uses as its example Verizon's Upper 700 MHz C block winning bids.<sup>36</sup> Verizon, however, did not win its licenses by bidding on a package. To the contrary, it bid against Google's package bid and could have lost any of the other licenses it had bid on, as it did Alaska, had U.S. Cellular's affiliated bidder, King Street Wireless, chosen to bid against it. Nothing about package bidding prevents bidders from competing for a single license, or small handful of licenses.

Respectfully submitted,



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<sup>36</sup> U.S. Cellular Comments at 36-38.